FEMA

Simple Retrofit Prevents Structural Damage

Saint Tammany Parish, Louisiana

Slidell, LA – Hurricane Katrina (2005) moved four feet of water into Bruce Colby's garage and one foot of water into his home in Slidell, Louisiana. Mr. Colby's garage doors are intact and the overall home is structurally sound. His neighbors, however, will have to replace their entire garages because of structural damage.

The difference between Mr. Colby's and his neighbors' homes is that he installed three International Code Council (ICC)-evaluated flood vents prior to Katrina. Mr. Colby installed the flood vents in order to reduce his flood insurance premium; that financial decision resulted in the physical protection of his property during the hurricane. "My insurance agent told me to get flood vents and so I did an [internet] search," Colby explained. He chose a flood vent certified by the ICC, which ensures that the vent has been rigorously tested for performance under flood conditions, including debris-filled flood waters that could clog ordinary vents.

The National Flood Insurance Program (NFIP) requires flood vents for residential basements, crawl spaces, garages, and other enclosed structures that are below the Base Flood Elevation in Special Flood Hazard Areas (SFHAs). SFHAs are at high-risk of flooding and subject to inundation by the base flood, which is the flood that has a one-percent chance of being equaled or exceeded in any given year. Much different than air vents, flood vents are specifically designed to open during flooding to allow the free flow of water through the structure. Normally these vents are closed so that animals, debris, and moisture are kept out. Some models are sealed, allowing for conditioned space in the interior. Other models are temperature-sensitive, opening during hot weather to allow air circulation.

Flood vents are critical because if water cannot equalize quickly enough, pressure from the flood water can blow out doors and windows, magnifying the damages from the flood. Often, pressure from flood waters that are not properly vented will compromise the entire structure, rendering the home uninhabitable. Proper flood venting may help prevent such substantial loss.

Because he installed flood vents, Mr. Colby saves $700 per year in flood insurance, and he only paid a total of $600 for three flood vents. The fact that his garage survived and his home is structurally sound following Katrina underscores the real value of proper flood venting.

Four feet of floodwater flowed through Mr. Colby's garage without causing structural damage. He is pleased with his decision to install flood vents: "I don't know anyone [else] who has a flood vent. No one around here knew what they were. I guess it will all change now."

Quick Facts

Sector:
Private

Cost:
$600.00 (Actual)

Primary Activity/Project:
Building Codes

Primary Funding:
Property Owner, Residential